



# I-70 Dedicated Truck Lanes

*Nova Ordo – A New Way Ahead*

## ***Dedicated Truck Lanes Feasibility Study***

*Non Nova Sed Nove –*

*Not new things, but in a New Way*

Trucking Industry Mobility and Technology Coalition (TIMTC)

October 7, 2009 – Las Vegas, Nevada

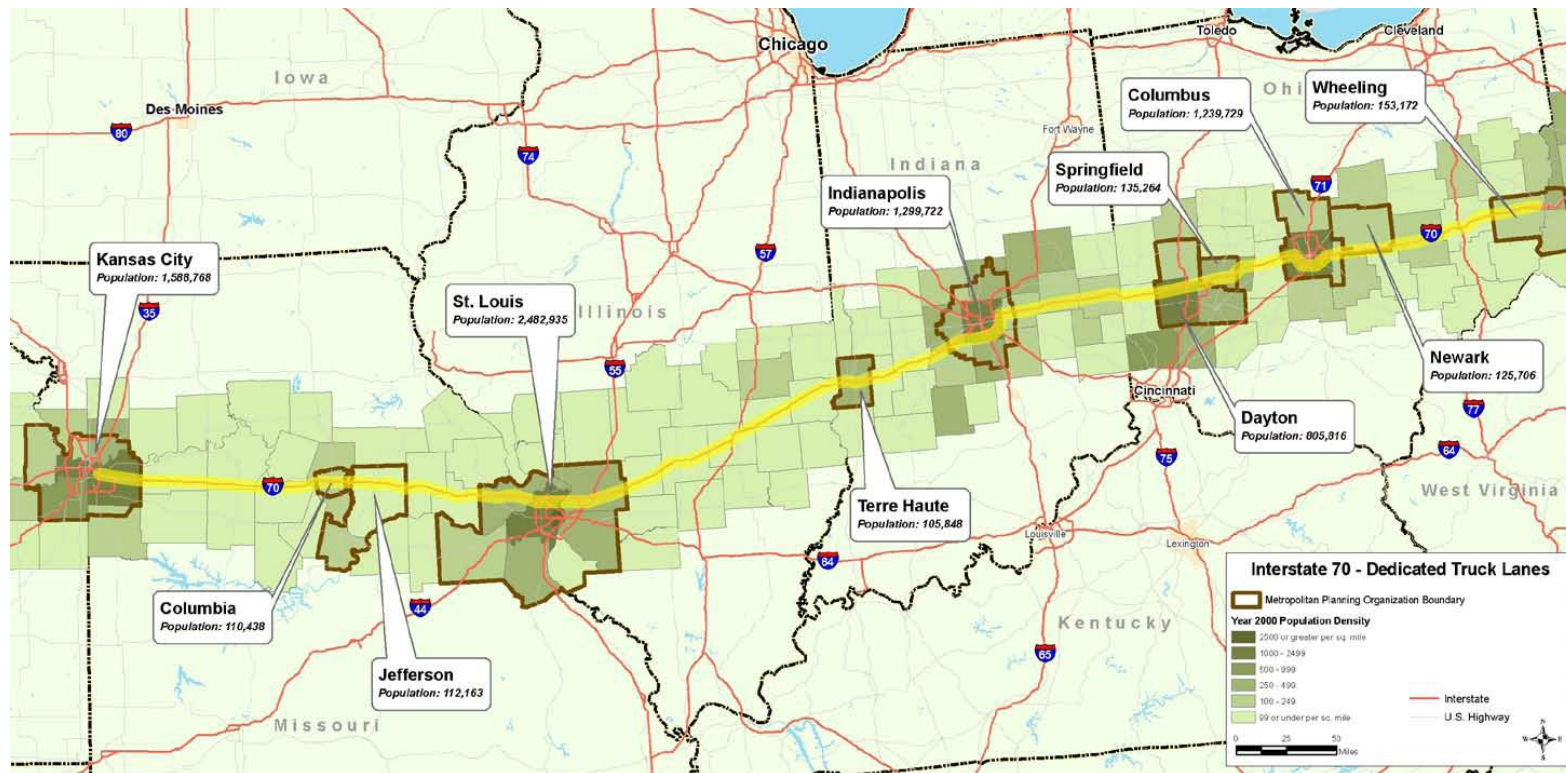
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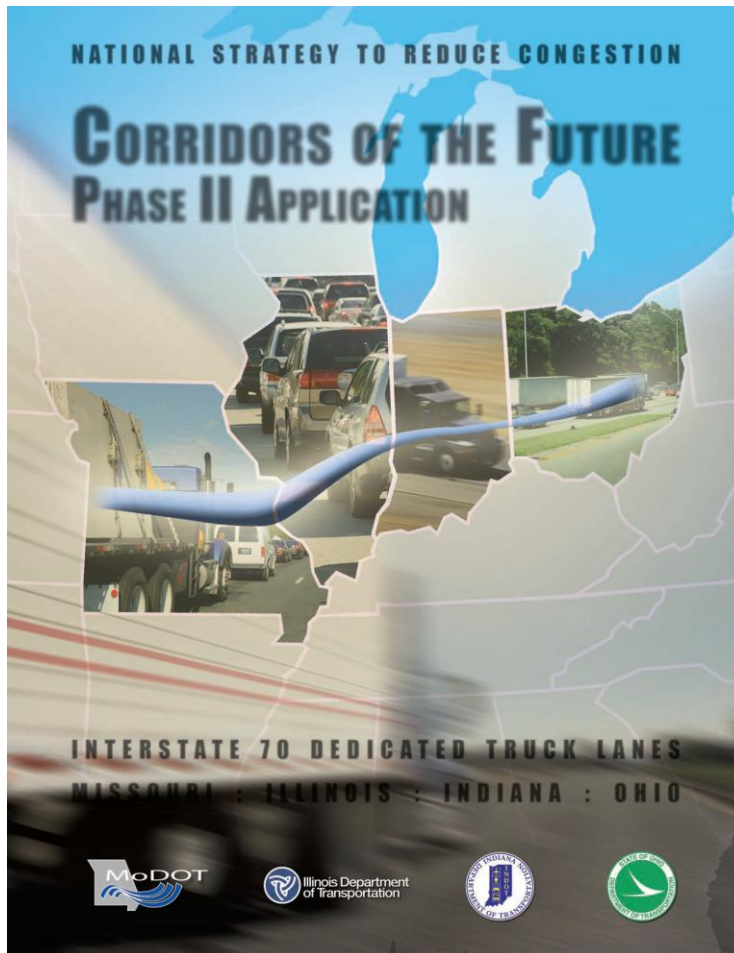


# I-70 Project Area





# In the beginning..... 2007





# Corridors of the Future Program (CFP)

- CFP an initiative under USDOT's  
“National Strategy to Reduce Congestion”
  - Explore innovative financing
  - Improve flow of goods
  - Enhance quality of life
- I-70 one of 6 corridors selected and funded
- \$5 million discretionary grant from FHWA
  - \$2 million to Missouri DOT - SEIS
  - \$3 million for I-70 Corridor Feasibility Study





## Vision and Goals

- Reduce congestion & enhance mobility
- Improve reliability
- Improve safety
- Enhance economic development
- Reduce impacts to environment
- Improve security
- Facilitate intermodal integration





# Corridor Conditions - Truck Flows 2035



Source: FHWA FAF 2



# Corridor Conditions - 2030 Urban Area Congestion



Kansas City



Saint Louis



	Urban	Rural
2004 MVMT	55,379	18,527
% of VMT Deficient in 2004	21.55%	0.00%
2030 MVMT	98,173	35,651
% of VMT Deficient in 2030	73.05%	43.90%
Growth	77.27%	92.43%



Indianapolis



Dayton



Columbus

Source: Wilbur Smith Associates, 2007



## Corridor Conditions - Safety

In 2004 the I-70 project area had:

- More than 10,000 crashes
- 18 % were truck involved crashes
  - 36% of the truck involved crashes involved fatalities mainly to passenger car drivers and occupants
- 2.3 million vehicle hours of incident-induced delay





## Corridor Conditions - North and Eastbound Speeds on I-70 lag behind other Midwest corridors

Figure 1-4: 30-Day Average Travel Speeds for 7 Corridors: Northbound and Eastbound



Source: American Transportation Research Institute (ATRI), June, 2006



## Corridor Conditions - South and Westbound Speeds on I-70 lag behind other Midwest corridors

Figure 1-5: 30-Day Average Travel Speeds for 7 Corridors: Southbound and Westbound



Source: ATRI, June 2006



## Phase 2 CFP Application Proposed:

Separating trucks from passenger cars as a solution to:

- Improve safety
  - Conflicts and fatalities will be reduced
- Reduce congestion
  - Vehicles accelerate and decelerate at different speeds
- Improve the Quality of Life





## Phase 2 CFP Application Proposed:

- A feasibility study to testing the hypothesis that:
  - Separation is the solution
  - A business case can be made for DTL's
- Corridor length makes the study the first of its kind internationally





# I-70 Dedicated Truck Lanes Feasibility Study scope:

## Define and evaluate:

- The need and demand for dedicated truck lanes
  - as one option for improving safety and moving freight more efficiently; and
- Whether investments in dedicated truck lanes
  - alone or in combination with investments in other modes are justified

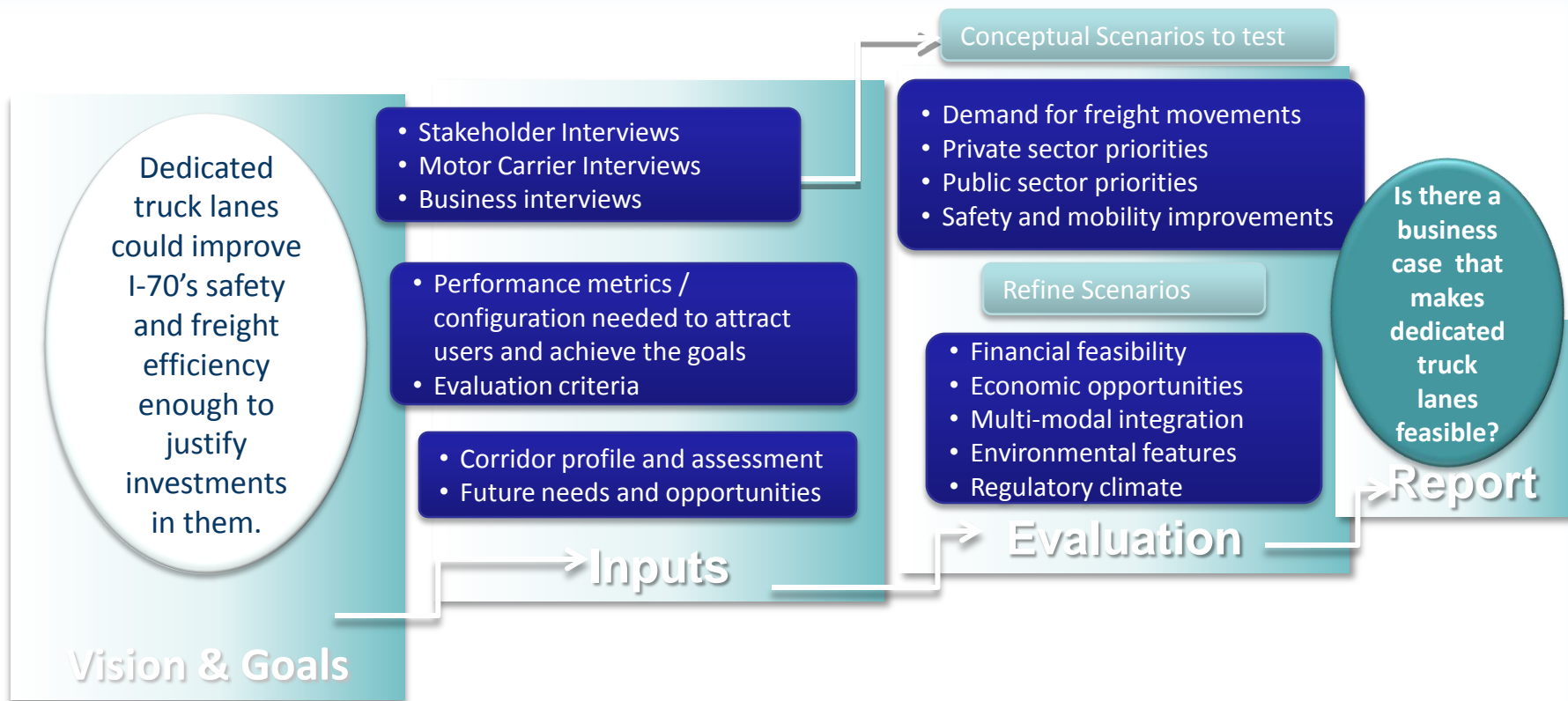


## Where we are....

- Study efforts began June 25-26, 2009
- Initial stakeholder outreach
- Data collection underway
- Analytical approach being finalized



## Phase 1 Analytical Approach: I-70 Dedicated Truck Lanes Feasibility Study



**DRAFT**



## Where we are...

- Technical modeling under way
  - Travel demand
  - Commodity movements (FAF)
  - Econometric
  - Toll revenue
- Range of concepts being discussed

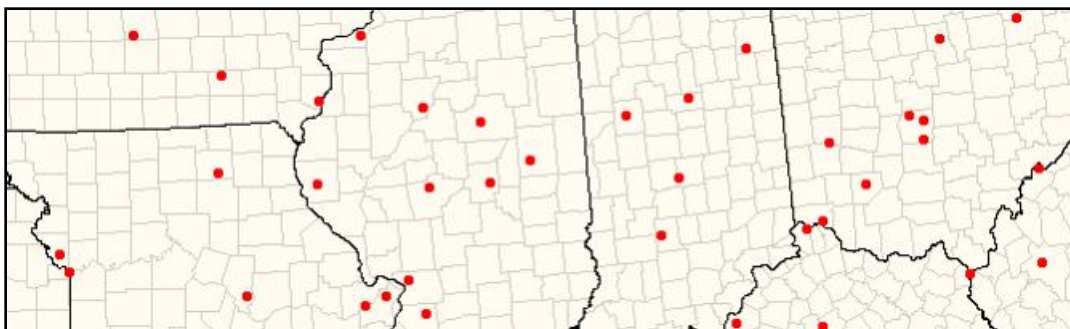




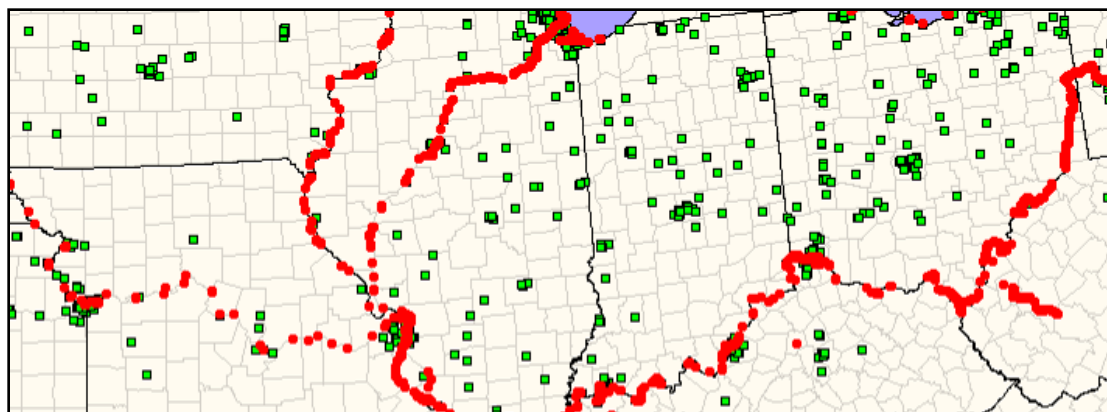
# Study Status – Freight & Commodity Analysis

## Freight generator data

Airports



Intermodal  
Terminals & Ports



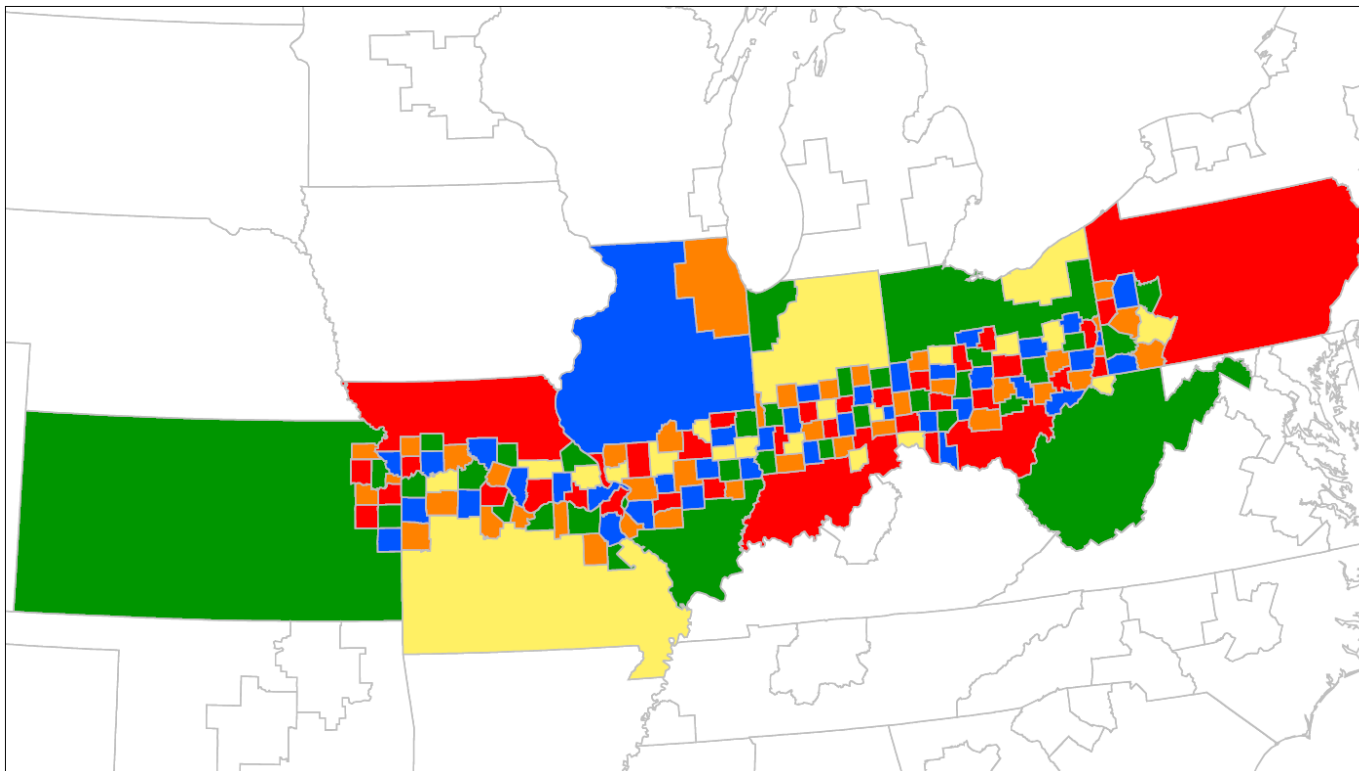


## I-70 Corridor project area connects to:

- 17 passenger and air cargo airports
- All 7 class 1 U.S. Railroads
  - cross or parallel I-70
- Water ports on the Missouri, Mississippi, and Ohio Rivers



# Level of detail - Travel Demand Modeling and Toll Revenue Analysis





## Range of Concepts: Design and Technology







: Example Slip Ramp Configuration

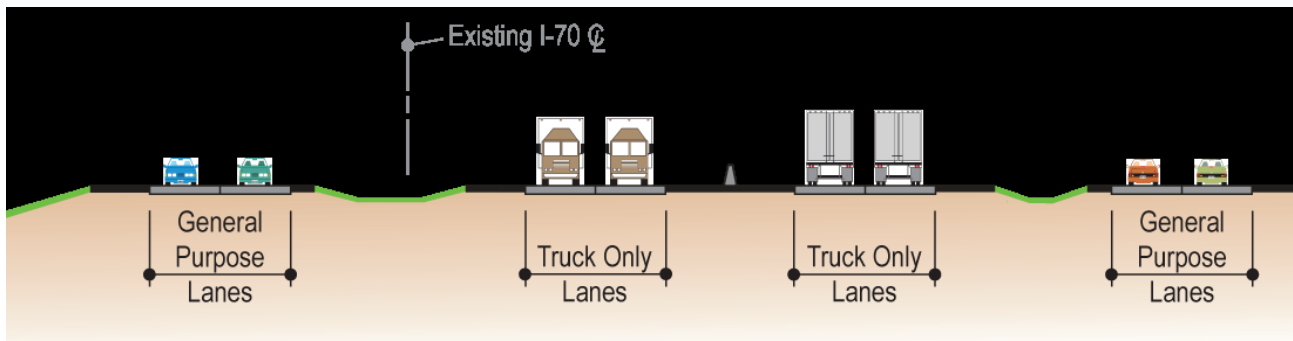
# Range of Concepts:

Example Truck-Car Separated Interchange

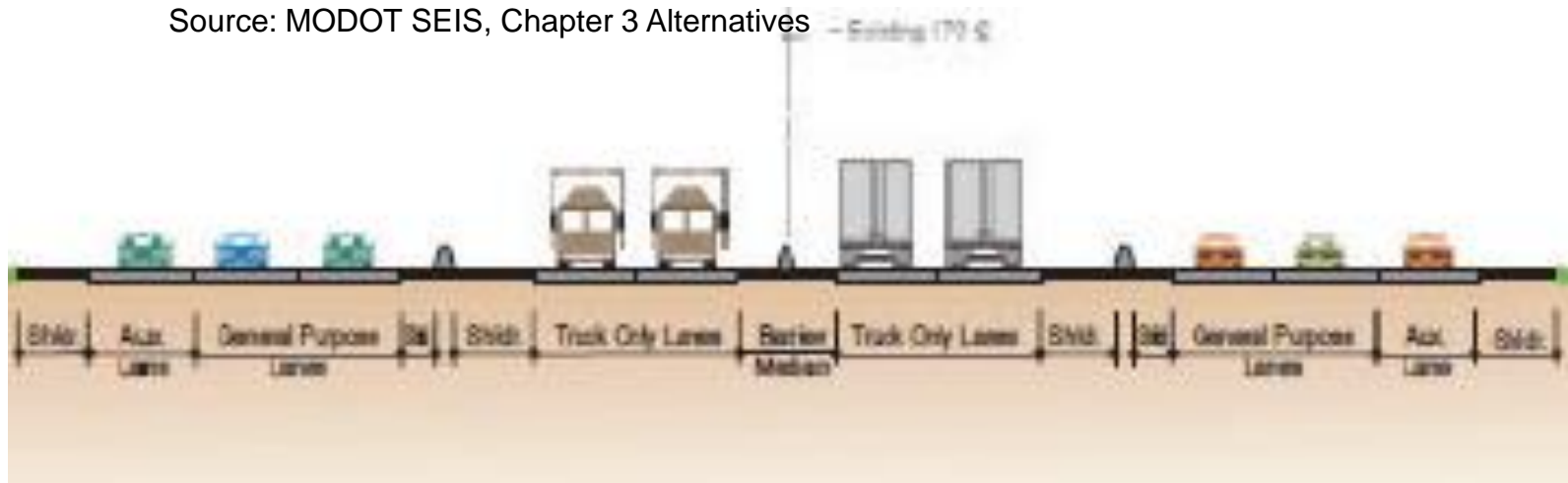




## Range of Concepts: Ex. Hard Configuration



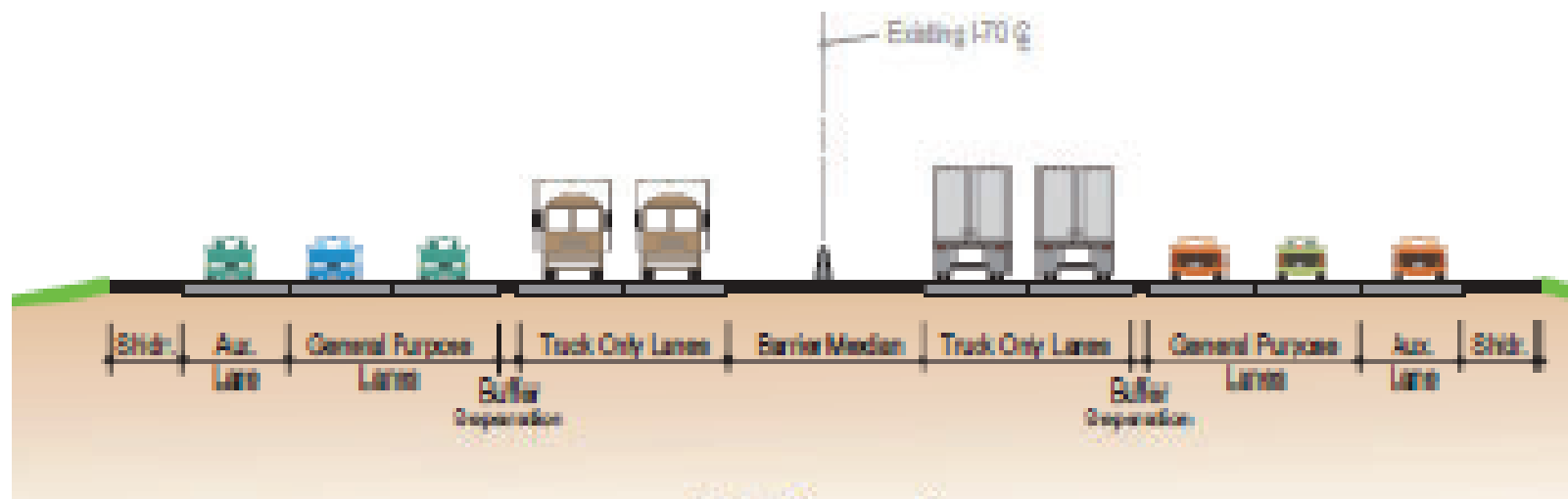
Source: MODOT SEIS, Chapter 3 Alternatives



Source: ROD FHWA MO EIS-09-01 FSEIS I-70 Corridor



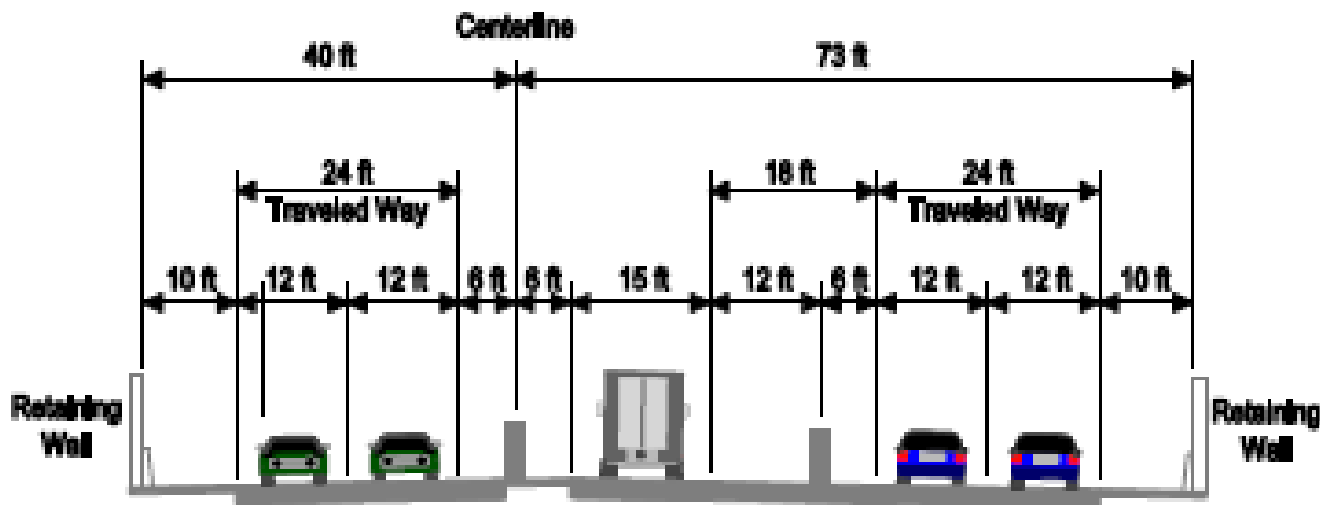
## Range of Concepts: Ex. Soft Configuration



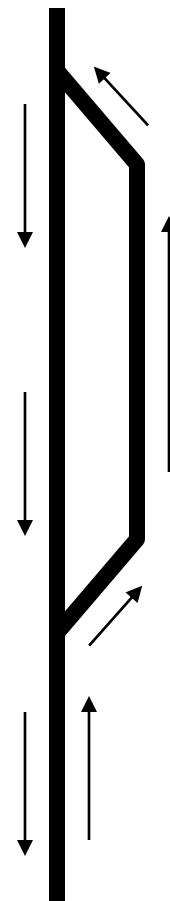
Source: ROD FHWA MO EIS-09-01 FSEIS I-70 Corridor



# Range of Concepts: High Tech Design Options Automated – Limited Access / Unbalanced Lane



Aerial View



## I-70 TRUCK ONLY CONCEPT TYPICAL SECTION

Median barrier separation





# Range of Concepts: Technology Integration

(examples)

- ITS
- Advanced Traffic Management Systems
- Traveler Information
- Emergency Management
- Weight in Motion / Virtual Weight-in-Motion
- Vehicle Infrastructure Integration (VII)
- Electronic Tolling / Congestion Pricing
- Roadside Parking

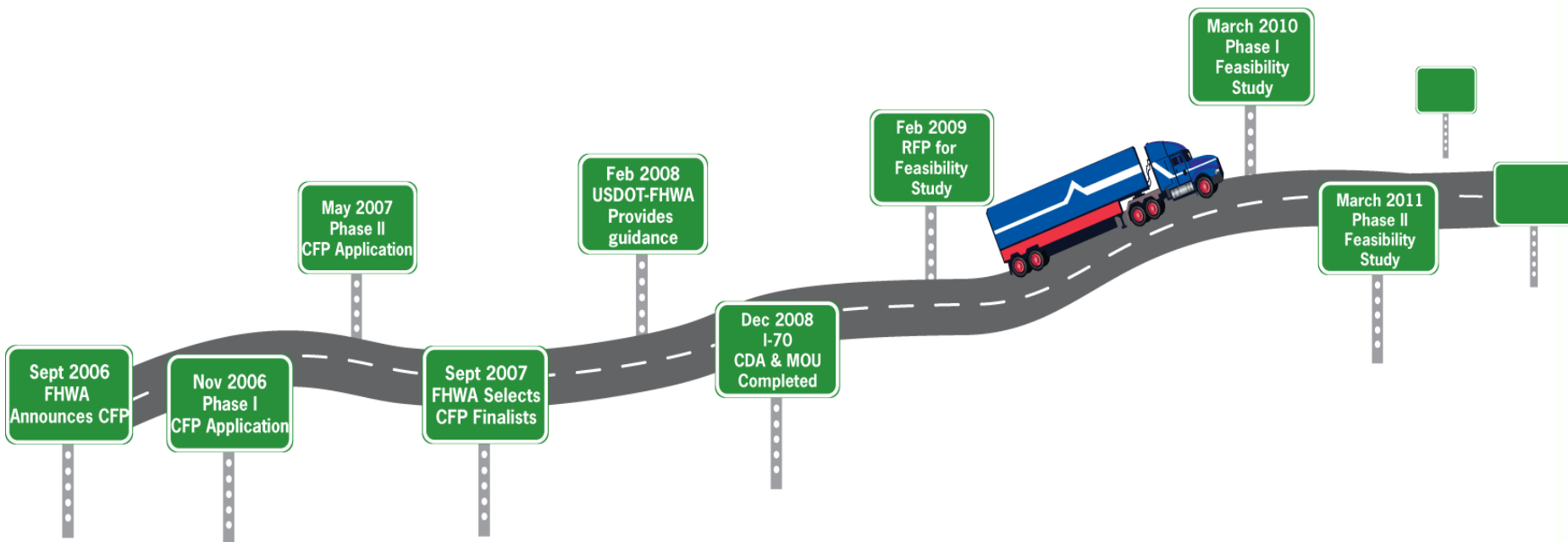


## Where we are...

- First technical reports within a month
- Web site available within 1-2 weeks
- More stakeholder outreach as findings become available
- Phase 1 Report in March, 2010



# I-70 Dedicated Truck Lanes - Milestones





**Thank You**

**[www.i70dtl.org](http://www.i70dtl.org)**

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